

ABSTRACT

A method and system for adjusting the amplitude and phase characteristics of wireless communication signals generated by an analog radio transmitter, based on transmit power control (TPC) signals received by a base station (BS) and known characteristics of a power amplifier (PA) included in the transmitter. A digital pre-distortion compensation module, having real and imaginary signal paths, receives and processes real and imaginary signal components used to generate the wireless communication signal. The phase and amplitude characteristics of the wireless communication signal are controlled in response to the TPC signals, such that impaired amplitude and phase characteristics of the PA are corrected.